

## COVER SHEET (PAGE 1 of 2)

## May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: American Basin Fish Screen and Habitat Improvement Project  
 Applicant Name: Natomas Mutual Water Company  
 Mailing Address: 2601 W. Elkhorn Boulevard, Rio Linda, California 95673  
 Telephone: (916) 925-5936  
 Fax: (916) 925-8691

Amount of funding requested: \$ 200,000 for 2 years

Indicate the Topic for which you are applying (check only one box).

- |                                                                                           |                                                               |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> Fish Passage Assessment                                          | <input checked="" type="checkbox"/> Fish Passage Improvements |
| <input type="checkbox"/> Floodplain and Habitat Restoration                               | <input type="checkbox"/> Gravel Restoration                   |
| <input type="checkbox"/> Fish Harvest                                                     | <input type="checkbox"/> Species Life History Studies         |
| <input type="checkbox"/> Watershed Planning/Implementation                                | <input type="checkbox"/> Education                            |
| <input type="checkbox"/> Fish Screen Evaluations - Alternatives and Biological Priorities |                                                               |

Indicate the geographic area of your proposal (check only one box):

- |                                                                 |                                                           |
|-----------------------------------------------------------------|-----------------------------------------------------------|
| <input checked="" type="checkbox"/> Sacramento River Mainstem   | <input type="checkbox"/> Sacramento Tributary: _____      |
| <input type="checkbox"/> Delta                                  | <input type="checkbox"/> East Side Delta Tributary: _____ |
| <input type="checkbox"/> Suisun Marsh and Bay                   | <input type="checkbox"/> San Joaquin Tributary: _____     |
| <input type="checkbox"/> San Joaquin River Mainstem             | <input type="checkbox"/> Other: _____                     |
| <input type="checkbox"/> Landscape (entire Bay-Delta watershed) | <input type="checkbox"/> North Bay: _____                 |

Indicate the primary species which the proposal addresses (check no more than two boxes):

- |                                                                                              |                                                               |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon |                                                               |
| <input checked="" type="checkbox"/> Winter-run chinook salmon                                | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon                                        | <input type="checkbox"/> Fall-run chinook salmon              |
| <input type="checkbox"/> Delta smelt                                                         | <input type="checkbox"/> Longfin smelt                        |
| <input type="checkbox"/> Splittail                                                           | <input type="checkbox"/> Steelhead trout                      |
| <input type="checkbox"/> Green sturgeon                                                      | <input type="checkbox"/> Striped bass                         |
| <input type="checkbox"/> Migratory birds                                                     |                                                               |

Indicate the type of applicant (check only one box):

- |                                                                     |                                         |
|---------------------------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> State Agency                               | <input type="checkbox"/> Federal agency |
| <input checked="" type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit     |
| <input type="checkbox"/> Local government/district                  | <input type="checkbox"/> Private party  |
| <input type="checkbox"/> University                                 | <input type="checkbox"/> Other: _____   |

Indicate the type of applicant (check only one box):

- |                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/> Planning | <input type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring          | <input type="checkbox"/> Education      |
| <input type="checkbox"/> Research            |                                         |

By signing below, the applicant declares the following:

- (1) the truthfulness of all representations in their proposal;
- (2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and
- (3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in Section.

  
(Signature of Applicant)

## Executive Summary

### Project Title and Applicant Name:

*Title:* American Basin Fish Screen and Habitat Improvement Project  
*Applicant:* Natomas Mutual Water Company

### Project Description and Primary Biological/Ecological Objectives:

This proposal requests cost share funding to complete a feasibility study, biological resource surveys, a preliminary design and environmental documentation for the American Basin Fish Screen and Habitat Improvement Project. The project involves the removal of a diversion dam, the consolidation of diversion dams, and the addition of state-of-the-art fish screens for Natomas Mutual Water Company (NMWC) diversion on the Sacramento River and its tributaries. The specific objective of the project is to remove migration barriers, and prevent straying and entrainment of winter-run Chinook salmon, spring-run Chinook salmon, fall-run Chinook salmon, late fall-run Chinook salmon, steelhead trout, splittail, greenhead sturgeon, and other high risk species.

### Approach/Tasks/Schedule:

NMWC's intended approach is to complete the feasibility study, preliminary design, and environmental documentation in consultation with the responsible resource agencies, finalize the environmental documentation, obtain the necessary permits, procure the required right-of-way, obtain bids for construction, perform the relocation work, and construct the fish screen facility. The design, environmental documentation, and administration of the work will be performed by NMWC with the assistance of consultants.

The project phases for which funding is requested are Phase I – *Feasibility Study* and Phase II – *Preliminary Design and Environmental Documentation*. The primary tasks being performed under Phase I are the development of a preliminary design and completion of the environmental documentation for the project. Phase I is scheduled for completion by October 1998. Phase II is scheduled for completion by April 1999.

### Justification for Project and Funding by CALFED:

Migration barriers and entrainment losses at unscreened diversions result in direct mortality to fishery resources, which have been identified as a principle stressor by CALFED. Reductions in direct entrainment mortality at unscreened diversions, particularly those located within critical fisheries habitat of the Sacramento – San Joaquin Bay-Delta system, have been identified as a high priority action. NMWC's diversions are located within the area of the Sacramento River designated by the National Marine Fisheries Service (NMFS) as critical habitat for winter-run salmon. Biological monitoring at the site has documented that winter-run, spring-run, fall-run, and late fall-run sized juvenile Chinook salmon, steelhead, splittail, and other sensitive resident and migratory fish species are currently entrained at this unscreened diversion. The project is, therefore, consistent with identified stressors and priorities for project funding by CALFED. In addition, the project represents a cooperative effort, with involvement in the design by U.S. Fish & Wildlife Service (USFWS), U.S. Bureau of Reclamation (USBR), California Department of Fish & Game (DFG), and NMFS, with significant financial matching support through the CVPIA Anadromous Fish Restoration Program.

**Budget Costs and Third Party Impacts:**

NMWC is seeking a \$200,000 cost share for the feasibility and preliminary design phases of the project. The amount requested represents fifty percent (50%) cost share of these phases of the project. The balance of funding for these phases will be paid for by the federal government. NMWC has paid all costs to date for the project. The only third party impact from the project, is the need to acquire right-of-way for the project. The acquisition will be made at fair-market value.

**Applicant Qualifications:**

The project will be managed by the District with the assistance of their Engineer, Ensign & Buckley Consulting Engineers (EB), heir Environmental Consultant, Hanson Environmental, Inc. (Hanson), and Miriam Green Associates (MGA) and their fisheries biologist. EB has provided engineering services to NMWC for over 12 years, and has provided services in the planning, design, and construction of over 10 fish screen projects in the State of California. MGA has prepared environmental documents for over 300 projects. Hanson has provided monitoring services and fish screen projects in the State of California.

**Monitoring and Data Evaluation:**

Extensive fisheries monitoring has been performed at on the Sacramento River to document the species composition, seasonal occurrence, and size distribution of juvenile and adult fish entrained by unscreened diversions. Data from this monitoring provides a basis for predicting biological benefits associated with the project. Monitoring of the screen performance has been incorporated into the project and will be performed in consultation with the DFG and the NMFS. Effectiveness of the fish screen will be determined by compliance with NMFS/DFG fish screening criteria.

**Local Support/Coordination with Other Programs/Compatibility with CALFED Objectives:**

NMWC's shareholders , the local agencies, and water purveyors have expressed support for the project. NMWC has provided funding for the project to date, and expects to provide future financial support for the project.

The work for this project is being coordinated with the CVPIA Anadromous Fish Restoration Program (AFRP), through consultation with its technical team. Coordination with the AFRP technical team will be continued though the design, construction, and testing phases of the project.

The removal of migration barriers, prevention of straying, and screening of diversions is consistent with the identified stressors and priorities for project funding by CALFED. The prevention of entrainment of high risk fish species will result in a significant improvement in the aquatic habitat of the Sacramento – San Joaquin Bay-Delta system.

**Approach/Tasks/Schedule:**

**Proposal for  
American Basin  
Fish Screen and Habitat Improvement Project**

Applicant: Natomas Mutual Water Company  
2601 W. Elkhorn Boulevard  
Rio Linda, California 95673  
Phone: (916) 925-5936  
Fax: (916) 925-8691  
E-Mail: natomash20aol.com

Type of Organization  
and Tax Status: Mutual Water Company  
Non-profit tax status

Tax ID No: 94-0708995

Participants: Engineer: Ensign & Buckley Consulting Engineers

Environmental Documentation: Miriam Green Associates

Fisheries Biologist: Hanson Environmental

Water Rights: Murray, Burns, and Kienlen

Geophysical: Kleinfelder, Inc.

Surveying and Mapping: KASL Consulting Engineers, Inc.

Legal and Funding Coordination: Downey, Brand, Seymour, and Rohwer  
Agency Consultation: U.S. Fish & Wildlife Service (USFWS), California  
Department of Fish & Game (DFG), U.S. Bureau of Reclamation (BUREC),  
National Marine Fisheries Service (NMFS), California Department of Water  
Resources (DWR), Natural Resource Conservation Service (NRCS),  
CALFED

## **Proposal for American Basin Fish Screen and Habitat Improvement Project**

### **1. Project Description**

- a. ***Project Description and Approach.*** This Proposal requests cost share funding from CALFED to perform the feasibility studies, preliminary design, and environmental documentation required for Natomas Mutual Water Company's (NMWC) American Fish Screen and Habitat Improvement Project. The specific goal of the project is to remove a fish negative barrier, improve habitat, and prevent entrainment of winter-run chinook salmon, spring-run chinook salmon, fall-run chinook salmon, late fall-run chinook salmon, splittail, steelhead trout, green sturgeon, and other high risk species.

NMWC is a non-profit mutual water company that controls surface water rights for over 250 landowners within the 55,000 acres known as the American Basin. The American Basin is surrounded by levees which are owned and maintained by Reclamation District No. 1000. NMWC owns and operates an irrigation system within the American Basin that has the capability to deliver water to about 31,000 acres within the basin. For efficiency and water quality purposes, NMWC maintains a "closed system", in which agricultural runoff is not allowed back into the Sacramento River during the growing season.

As part of its irrigation system, NMWC operates five (5) unscreened diversions, with a total capacity of about 630 cfs. In addition, during most irrigation seasons NMWC installs a dam at the mouth of the Cross Canal and installs diesel lift pumps to draw water from the Sacramento River into the Cross Canal. The Cross Canal is a tributary to the Sacramento River, which channelizes flow from a number of creeks to the east (refer to Figure 1, included in Section 2; and paragraph 1.c., below). A map of NMWC's existing facilities is included as Figure 2, included in Section 2.

Studies performed by NMWC in 1993 and 1994 indicated the need for removal of the diversion facilities from the Cross Canal and recommended a consolidation of diversion points to accommodate screening of diversions. NMWC has since been collecting information and evaluating the impacts of these proposed changes on the operation of the present system and any planned future project. The project is complicated by projects proposed by other entities in which NMWC has been asked to participate. The most significant of these projects is a conjunctive use proposal by the DWR, and plans for an M&I diversion by Placer County. NMWC will coordinate the project with these entities, but intends to move forward with the design of facilities to meet their present needs.

The proposed project, at this stage, is to remove all facilities from the Cross Canal, including the Verona Diversion Dam and consolidate the diversions on the Sacramento River to the extent possible. To accomplish the consolidation, some modifications will be required to the internal irrigation system.

NMWC's intended approach is to perform the required studies, design, and environmental work using the team shown in the Organization Chart, Figure 4, included in Section 2. The proposed schedule and specific tasks are summarized in Figure 5, included in Section 2. The major activities to complete the work, in chronological order, are to complete a feasibility study which evaluates various alternatives; develop a preliminary design and prepare the required environmental documentation; prepare a final design and obtain the required permits; perform the project construction; and test and evaluate the facilities. This proposal requests cost share funding for the work required to complete Phase 1, *Feasibility Study*, and Phase 2, *Preliminary Design and Environmental Documentation*. The

design, environmental documentation, permitting, and construction supervision will be performed by NMWC, with the assistance of the existing team of consultants. All work will be performed in consultation with the Anadromous Fish Screen Program Technical Team, headed by the USFWS. The construction work will be performed by a qualified contractor, under a competitively bid construction contract. Upon start-up and commissioning of the facility, an evaluation program will be carried out by the DFG and the NMFS. NMWC will operate and maintain the facility with in-house staff, who will be trained by the contractor and consultants during start-up.

b. ***Proposed Scope of Work.*** The Scope of Work for the project has been broken down into five phases:

- ▶ Phase I – Feasibility Study
- ▶ Phase II – Preliminary Design and Environmental Documentation
- ▶ Phase III – Final Design and Permitting
- ▶ Phase IV – Bidding and Construction
- ▶ Phase V – Screen Evaluation

A summary of the phases and proposed subtasks are identified in the attached Schedule.

The project phases being proposed for funding are Phase 1 and Phase 2. The proposed budget for these phases are broken down for each subtask on the attached Estimated Budget and Scope of Work, included as Table 1 in Section 2.

The deliverables for Phase 1 will be a Feasibility Study Report and a Biological Resource Survey Report. The deliverables for Phase 2 will be the Preliminary Design and an Administrative Draft of the EIR/EIS.

Monthly progress reports for the project will be prepared and distributed on the first of the month to the NMFS, USFWS, and DFG screen engineering staff. These reports will be distributed to CALFED participants, as requested. The reports include an updated overall project schedule, a description of activities completed in the previous month, and a description of activities anticipated for the upcoming month. Financial reports can be submitted to CALFED on a quarterly basis, or as otherwise requested.

c. ***Location and/or Geographic Boundaries of Project.*** The project is located in the Sacramento River Watershed in Sacramento and Sutter Counties. The project affects the American Basin, the location of which is shown in the attached Figure 1. The consolidation of diversions along the left bank of the Sacramento River, from about River Mile 65 to River Mile 79 is proposed. Also proposed is the removal of two diversions from the Natomas Cross Canal. The Cross Canal is the tributary to the Sacramento River, at approximately River Mile 79, for the Coon Creek, Bunkham Slough, Markham Ravine, Auburn Ravine, King Slough, Pleasant Grove Creek, and Curry Creek Watersheds, see attached Figure 1.

d. ***Expected Benefit(s).*** The project addresses several primary stressors, including Alteration of Flows, Floodplain and Marshplain Changes, and Channel Form Changes. The primary focus will be upon Alteration of Flows stressor. Implementation of the project will essentially eliminate all of NMWC's potential impacts on this stressor. Removal of the Verona Diversion Dam, and removal of the diversions will restore natural flow from the Cross Canal Tributary, eliminate negative barriers, and

remove the potential for the straying of migratory fish due to pumping in the Cross Canal. Consolidation of diversions and the installation of fish screens will essentially eliminate entrainment. Consolidation of diversion and removal of facilities from the Cross Canal will eliminate most Floodplain and Marshplain Changes and Channel Form Changes. In particular, removal of the diversion dam will eliminate the isolation of a sidechannel and tributary to the Sacramento river. Expected benefits of the project include removal of migration barriers and a substantial reduction of entrainment mortality to winter-run chinook salmon, spring-run chinook salmon, late fall-run chinook salmon, steelhead trout, green sturgeon, splittail, white sturgeon, striped bass, fall-run chinook salmon, and american shad . Based upon DFG and NMFS fish screening criteria, resource agencies have estimated the reduction in entrainment losses of juvenile fish (e.g., juvenile chinook salmon) to be approximately ninety-five percent (95%) when compared with the existing unscreened diversion facility.

The project will also provide for restoration and preservation of priority habitats. Removal of instream dams and other facilities as a result of consolidation will restore Instream Aquatic Habitat and Shaded Riverine Aquatic Habitat. Diversion facilities also provide a critical supply of water that enhances seasonal wetland and aquatic habitat and benefits migratory birds.

- e. ***Biological and Ecological/Biological/Technical Justification.*** Under paragraph 1.d, above, the primary stressors, species, and habitats affected were discussed. Implementation of the project will virtually eliminate all of NMWC's potential impacts upon the primary stressor "Alteration of Flows". The feasibility study work proposed for funding will compare alternatives and include an evaluation of alternatives. The project will address the ERPP objectives of eliminating entrainment, migration barriers, and the potential for straying. All work will be coordinated with the Anadromous Fish Restoration Program Technical Team.
- f. ***Monitoring and Data Evaluation.*** Extensive fisheries monitoring has been performed in the Sacramento River to document the species composition, seasonal occurrence, and size distribution of juvenile and adult fish entrained at this unscreened diversion. Data from these monitoring programs provide a basis for predicting biological benefits associated with the positive barrier fish screen. Monitoring of fish screen performance, incorporated as part of the project, will include, but not be limited to, measurements of the tolerance of screen panels and other components during construction, extensive measurement of approach velocities and adjustment of baffles as necessary to ensure compliance with DFG and NMFS screening criteria, and periodic underwater inspection of the screen structure and it's performance (e.g., debris accumulation) as part of routine operations. Underwater inspection of the screen will be performed by DFG and NMFS staff. Performance of the fish screen will be determined by compliance with NMFS and DFG intake design criteria, including measurement of approach velocities and screen construction specifications.
- g. ***Implementation.*** A Habitat Conservation Plan (HCP) has been implemented for the development of the Natomas Basin by the City of Sacramento. It took four (4) years to develop this HCP and it was coordinated with, and signed by, the USFWS, U.S. Army Corps of Engineers (COE), DFG, Regional Water Quality Control Board, Sacramento County, Sutter County, Reclamation District No. 1000, and NMWC.

The HCP has been confirmed by the City of Sacramento as being in compliance with CEQA, and relevant portions of it have also been adopted by Reclamation District No. 1000. NMWC is in the process of evaluating what aspects of the HCP are applicable to their operations, and are expected to adopt relevant portions of the HCP in 1998.

Operation and maintenance of NMWC is extensively coordinated with Reclamation District No. 1000, who is responsible for flood control. Through the Water Forum, NMWC also coordinates their operations with the City of Sacramento, Sacramento County, Placer County, and representatives from the environmental community.

Local support for the project is universal. Organizations that have openly supported the fish screen project include NMWC's Board of Directors, City of Sacramento, Sacramento County, Placer County, Placer County Water Agency, Pleasant Grove/Verona Irrigation District, and all of the participants in the Anadromous Fish Screen Program Technical Team.

There have been no adverse impacts identified that have not been easily mitigated by the overwhelming benefits of the project on the mainstem of the Sacramento River and the tributaries to the Cross Canal.

## 2. Costs and Schedule to Implement Proposed Project

- a. **Budget Costs.** The preliminary estimate for the complete project is about \$10 to \$12 million dollars. At this time, NMWC is requesting cost share funding for the Feasibility Study Phase and the Preliminary Design and Environmental Documentation Phase of the project. This funding will be used to develop a proposed design that is most beneficial to the habitat and is acceptable to the agencies and other interested parties. Based upon the preliminary design, a budget for the complete project will be developed and will be used as a basis for future funding requests.

The estimated budget is summarized in Table No. 1, *Estimated Budget and Scope of Work*, included in Section 2. The funding requested is for Phase 1 and Phase 2 of the project, in the amount of \$200,000. The costs are included for these phases, with a breakdown of the tasks accompanying each phase. The cost for the remaining phases will be determined based upon the preliminary design.

All of the work will be performed under service contracts, with the exception of legal and administration, which will be performed by NMWC and their legal firm. The legal and administrative costs are estimated at five percent (5%) of the estimated costs for each phase.

NMWC began studies of the project in 1993, and has funded all work on the project to date. NMWC is seeking \$200,000 from CALFED for work in 1998 and 1999.

This is based upon a fifty percent (50%) cost share with federal CVPIA funds. The federal funding of the first two phases for the project has been recommended, and is pending processing of applications for distribution of funds.

Without funding support for the project, NMWC will continue with some feasibility work, but at a much reduced level of effort. The project schedule will be moved back based upon the level of effort NMWC can afford to fund. The pending CVPIA funding can be used without the need for cost sharing at this time. However, the funds are not sufficient to complete both Phase I and Phase II of the project. The CVPIA funds will allow work to continue until the final quarter of 1998.

- b. **Schedule Milestones.** Figure 5, Section 2, includes detailed start and finish dates for each task. The major milestones are:

- ▶ Completion of Feasibility Study by October 6, 1998
- ▶ Completion of Preliminary Design by April 6, 1999
- ▶ Administrative Draft of EIR by April 6, 1999

Payments for service contracts will be made on a monthly basis. Service contract invoices will detail man-hours spent on each task, and level of effort will be gaged against the project schedule.

- c. **Third Party Impacts.** The only direct third party impact from the project will be the need for acquisition of right-of-way. As mitigation, NMWC will purchase the land at fair-market value from any effected landowners. The need for zoning changes is not anticipated since most land in the impacted areas is zoned for agriculture.

The project may indirectly impact future projects proposed by a variety of entities that are presently being negotiated with NMWC. Coordination of future projects have been anticipated in the Scope of Work. All of the affected entities have been included on the proposed Organization Chart. NMWC has informed these entities of the project and the need for their participation, if required.

### 3. Applicant Qualifications

- a. **Overview of Team.** NMWC's team for this project will be organized as shown on the Organization Chart, Figure 1. NMWC's consultants were selected based upon qualifications and their familiarity with NMWC and NMWC's facilities. The Project Manager and Engineer for the project, Ensign & Buckley Consulting Engineers (EB), has been providing engineering services to NMWC for over 12 years. EB has provided services in the planning, design, and construction of over ten fish screen projects in the State of California, and has worked on all of NMWC's existing diversions. The Environmental Consultant for the project, Miriam Green Associates (MGA) has performed extensive work in the American Basin and has a great deal of experience with rare, threatened, and endangered species. MGA has extensive experience in the preparation and management of CEQA/NEPA compliance documents. The Fisheries Biologist for the project, Hanson Environmental, Inc. (Hanson), is a well-respected biological consulting firm, specializing in fisheries protection. Hanson's team has prepared environmental documents and permit applications for several screening projects.
- b. **Responsibilities of Personnel.** Following is a brief description of the responsibilities of the key personnel:
- ▶ Ferrel H. Ensign, Ensign & Buckley Consulting Engineers, Program Manager: Development of concepts and designs, quality assurance, budget control, and technical review; review of correspondence and reports; coordination with NMWC and agencies; and assist Project Engineer with coordinating the work of the design team. Development of Construction Quality Control Inspection Plan (QCIP) and supervision of construction management activities.
  - ▶ Miriam Green, Miriam Green Associates, Environmental Program Manager: Responsible for supervision of biologist who will perform resource surveys; respond to requirements for Endangered Species Act (ESA); consultation and conferencing; coordinate with agencies regarding ESA, NEPA, and CEQA compliance; and prepare environmental documents necessary to comply with CEQA/NEPA requirements.
  - ▶ Charles H. Hanson, PhD, Hanson Environmental, Inc., Fisheries Biologist. Responsible for input regarding species composition, seasonal periods of occurrence, length-frequency distribution in support of engineering design criteria; and estimation of fisheries benefits resulting from the positive barrier fish screen.
  - ▶ Peter Hughes, Natomas Mutual Water Company, General Manager: Responsible for administration of all funding from CVPIA, CALFED, and any other funding sources. Coordinates activities with NMWC's Board. Responsible for budgeting, communication, and coordination with state and federal agencies regarding the project.
  - ▶ Thomas Barandas, Natomas Mutual Water Company, Special Projects Manager: Responsible for providing input into fish screen design; coordination of field activities; and supervision of NMWC's operation and maintenance staff.
  - ▶ Stephen R. Sullivan, Ensign & Buckley Consulting Engineers, Project Engineer: Responsible for day-to-day organization and execution of the work; development of designs; coordination and assignments to team members; preparation of agendas and meeting minutes; preparation of design details and calculations; review of design drawings; and preparation of

- c. **Relevant Experience of Key Personnel.** Following is a summary of the relevant experience of the supervisory and key staff:

- ▶ **Thomas Barandas** is the Special Projects Manager for NMWC, and is a life-long resident of American Basin. He has worked in the agricultural industry all of his life. His responsibilities include overseeing the irrigation, recycle and drainage system, and pumping plant operation; including supervision of field staff, and developing, implementing, and reporting for maintenance budgets.
  
- ▶ **Stephen R. Sullivan** is a Registered Civil Engineer in the State of California, with a background in design and construction of fish screening facilities, pumping plants, levee construction, and irrigation facilities. He is experienced in the application of the NMFS and the DFG fish screen criteria, and is familiar with the latest technologies in the field and the latest designs used on the Sacramento River. He also has experience in dealing with the agencies on the Anadromous Fish Screen Program Technical Team and is familiar with the U.S. Army Corps of Engineers', the Reclamation Board's, and the DFG's requirements for construction in the Sacramento River. Recent projects include: designed Reclamation District No. 1004's Princeton Pumping Plant Fish Screen Facility; prepared long-term planning studies for screening the Natomas Mutual Water Company's five (5) Sacramento River Diversions; evaluated improvements to the Northern California Power Authority's Beaver Creek Diversion; and prepared design details for the preliminary design of new fish screening facility for PG&E's intake on the Eel River. He has also designed and supervised the construction of a number of facilities on the Sacramento River and it's tributaries.

#### **4. Compliance with Standard Terms and Conditions**

NMWC has reviewed the standard terms and conditions, and does not take exception to the conditions. Section 2 includes the Proposal Submittals requested from NMWC and their Consultants.

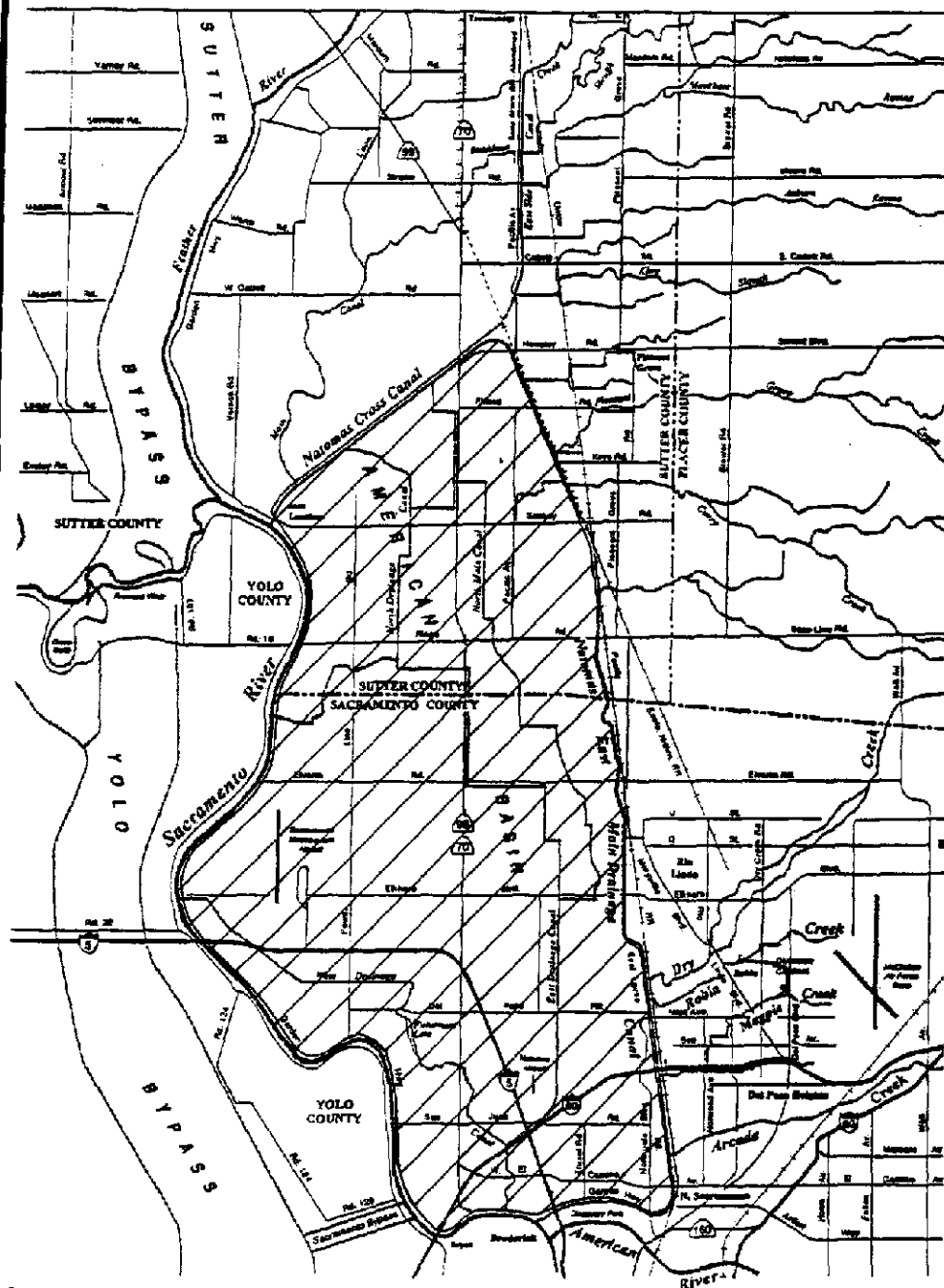
The standard clause for service and consulting services contracts will be included in all Consultant Service Agreements for which CALFED funds are used. A copy of the agreements will be provided to CALFED. The standard clauses for contracts with non-profit entities are acceptable to NMWC, and can be included in the Contract between NMWC and CALFED.

**Section 2**

**Proposal for  
American Basin Fish Screen and Habitat Improvement Project  
Cost Share Funding**

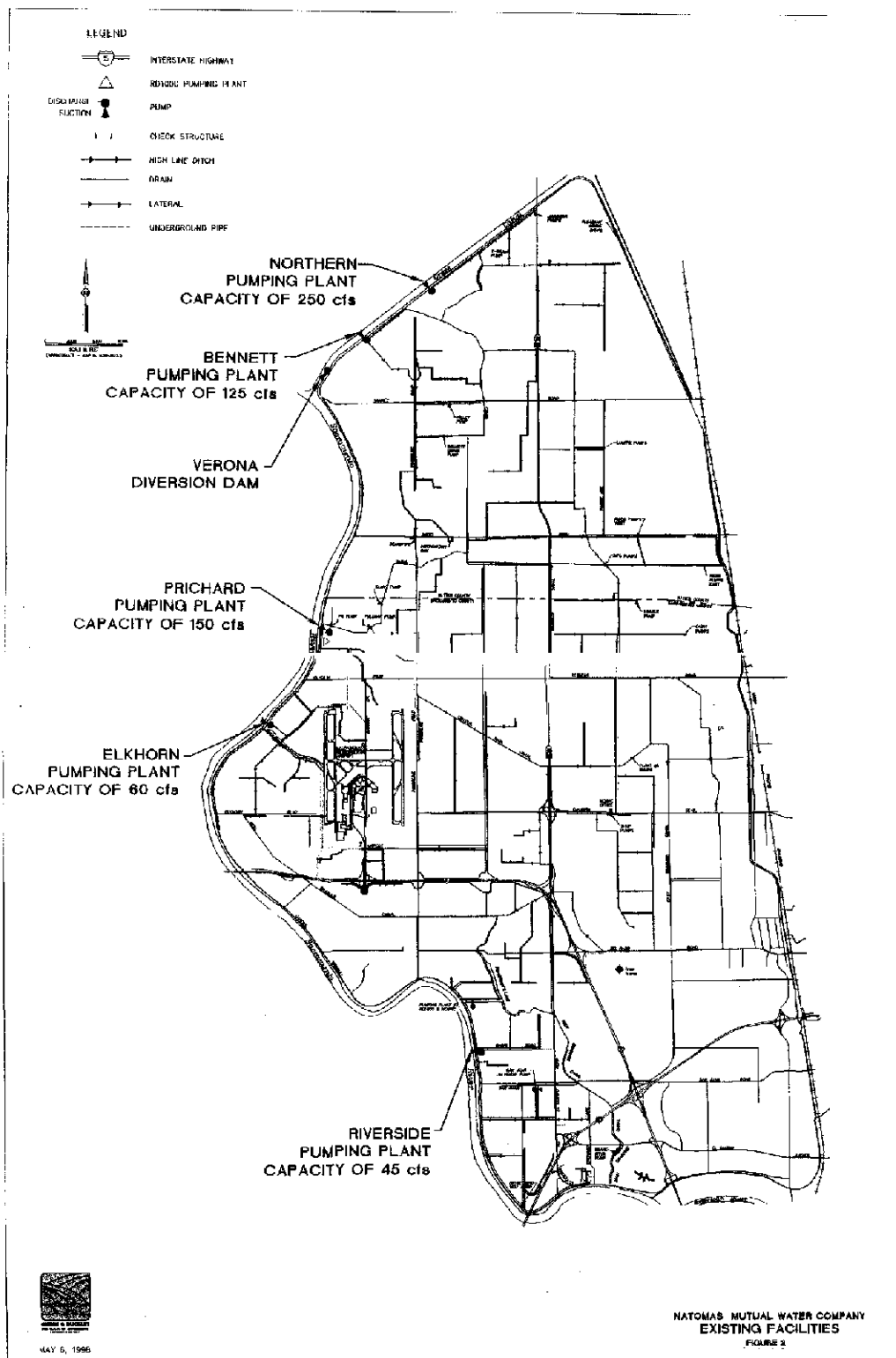
**Index**

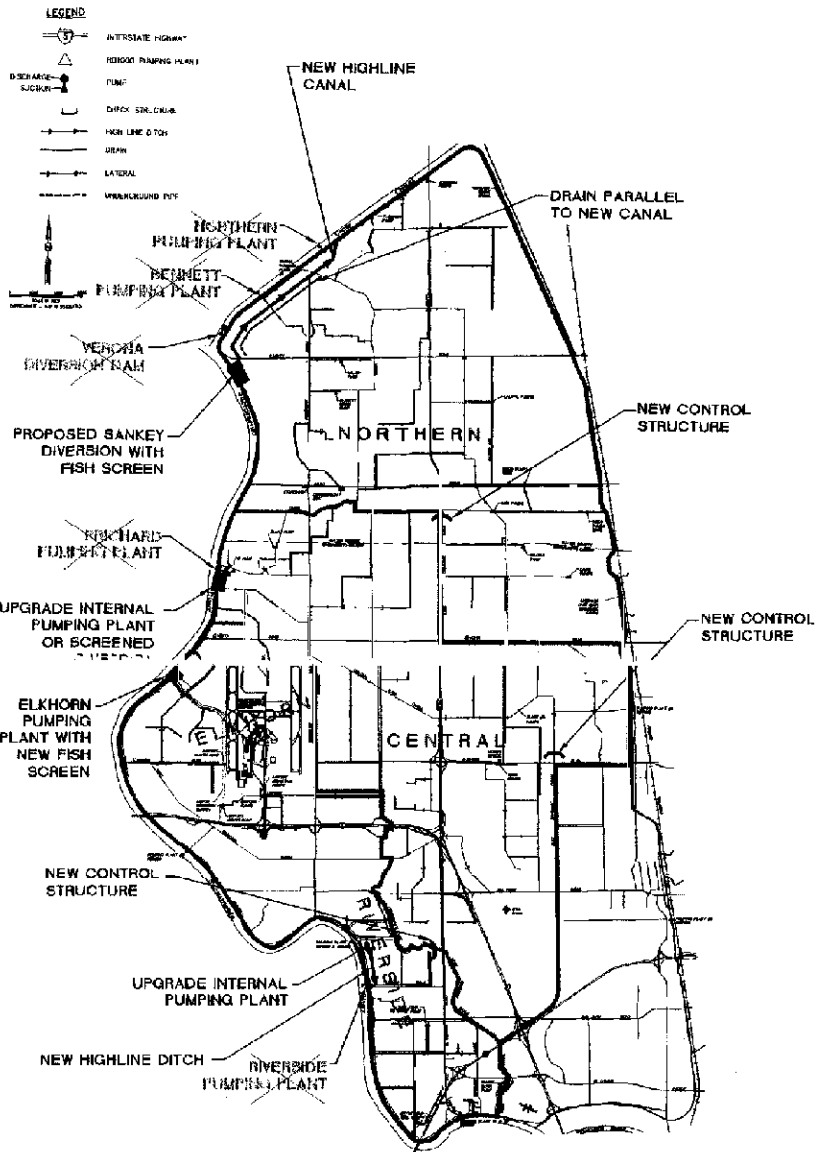
<u><b>Item No.</b></u>	<u><b>Description</b></u>
1	Natomas Mutual Water Company Existing Facilities, Figure 1
2	Natomas Mutual Water Company Proposed Facilities, Figure 2
3	Natomas Mutual Water Company Map, Figure 3
4	Proposed Organization Chart, Figure 4
5	Project Schedule, Figure 5
6	Proposed Budget and Schedule of Values, Table No. 1



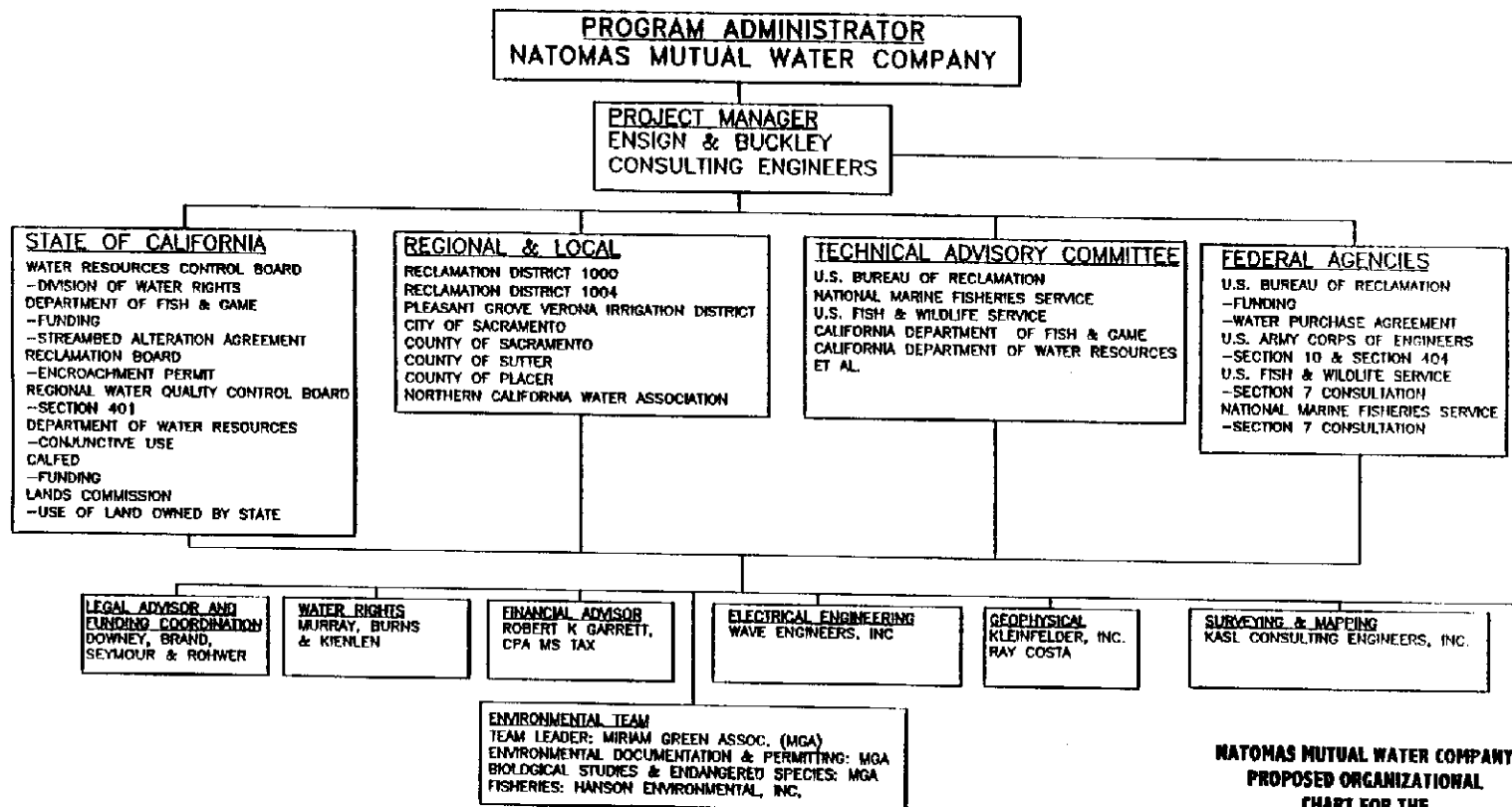
NATOMAS MUTUAL WATER COMPANY

FIGURE 1





NATOMAS MUTUAL WATER COMPANY  
PROPOSED FACILITIES  
FIGURE 5



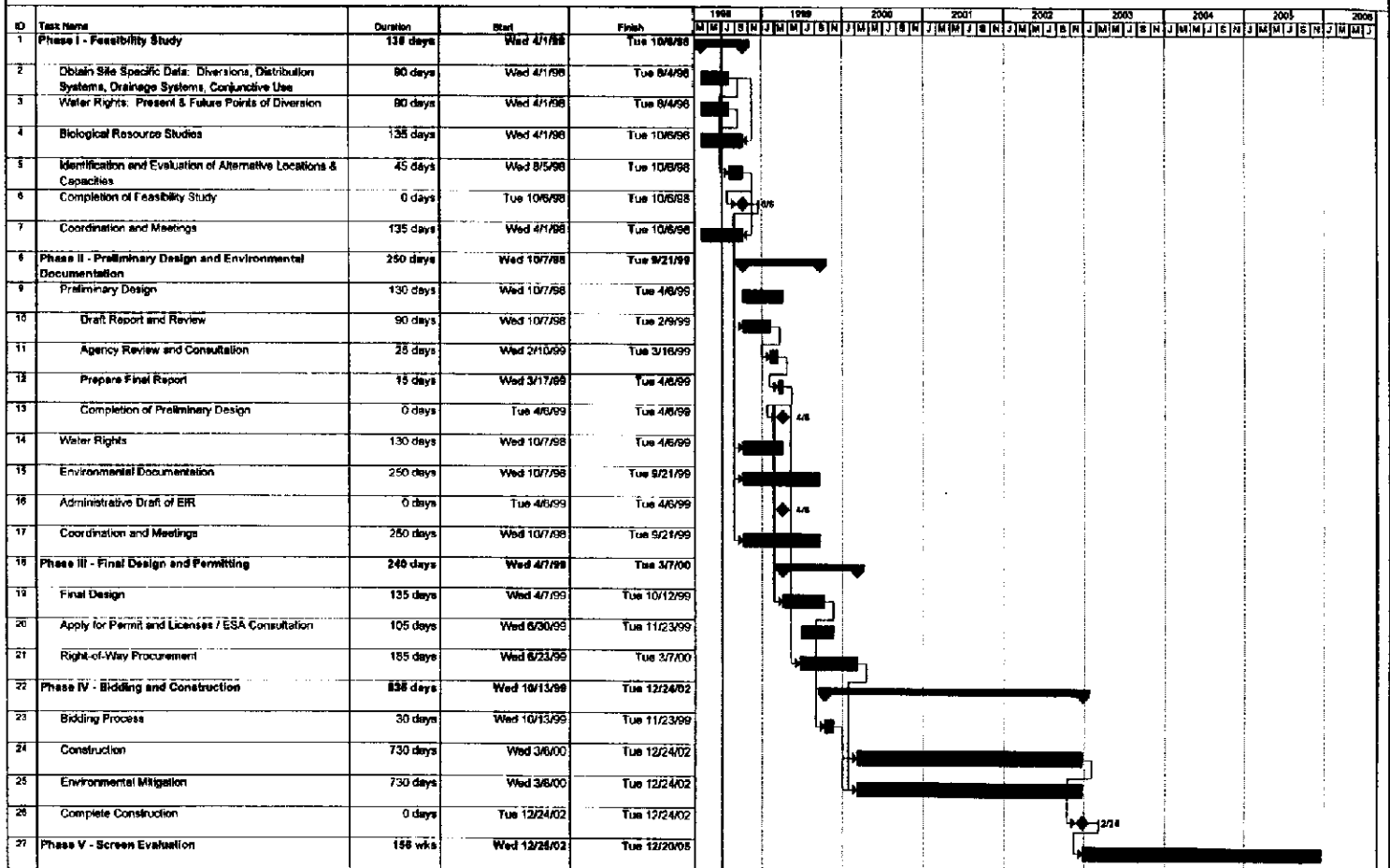
**ENSIGN & BUCKLEY**  
CONSULTING ENGINEERS  
-SACRAMENTO-



**NATOMAS MUTUAL WATER COMPANY  
PROPOSED ORGANIZATIONAL  
CHART FOR THE  
EVALUATION, DESIGN & CONSTRUCTION  
OF FISH SCREENS**

FIGURE 4

**Natomas Mutual Water Company  
American Basin Fish Screen & Habitat Improvement Project  
Summary of Preliminary Schedule  
July 2, 1998**



Project: Natomas Mutual Water Company Fish Screen Project  
Date: Thu 7/22/98  
Prepared by: Ensign and Buckley

Task	Summary	Milestone	Roll Up Milestone	External Tasks
Split	Summary	Roll Up Milestone	Roll Up Milestone	Project Summary
Progress	Roll Up Task	Roll Up Progress	Roll Up Progress	

## ESTIMATED BUDGET &amp; SCOPE OF WORK

NATOMAS MUTUAL WATER COMPANY  
AMERICAN BASIN FISH SCREEN & HABITAT IMPROVEMENT PROJECT

TASK DESCRIPTION	LEGAL & ADMIN (\$)	SERVICE CONTRACTS (\$)	PROJECT COSTS (\$)	PROPOSED CALFED FUNDING <sup>1</sup> (\$)
<b><u>Phase I - Feasibility Study</u></b>				
Task No 1.1 Obtain Site Specific Data		35,000	35,000	17,500
Task No 1.2 Water Rights		15,000	15,000	7,500
Task No 1.3 Biological Resource Studies		25,000	25,000	12,500
Task No 1.4 Evaluation of Alternatives		60,000	60,000	30,000
Task No 1.5 Coordination and Meetings		7,500	7,500	3,750
Task No 1.6 Legal and Administration	7,500		7,500	3,750
<b>Total Estimated Phase I Costs:</b>	<b>7,500</b>	<b>142,500</b>	<b>150,000</b>	<b>75,000</b>
<b><u>Phase II - Preliminary Design and Environmental Documentation</u></b>				
Task No 2.1 Preliminary Design		100,000	100,000	50,000
Task No 2.2 Water Rights		25,000	25,000	12,500
Task No 2.3 Environmental Documentation		100,000	100,000	50,000
Task No 2.4 Coordination and Meetings		12,500	12,500	6,250
Task No 2.5 Legal and Administration	12,500		12,500	6,250
<b>Total Estimated Phase II Costs:</b>	<b>12,500</b>	<b>237,500</b>	<b>250,000</b>	<b>125,000</b>
<b><u>Phase III - Final Design</u></b>				
			TO BE DETERMINED	
<b><u>Phase IV - Bidding and Construction</u></b>				
			TO BE DETERMINED	
<b><u>Phase V - Screen Evaluation</u></b>				
			TO BE DETERMINED	
<b>Total Estimated Project Costs Phase I &amp; II:</b>	<b>20,000</b>	<b>380,000</b>	<b>400,000</b>	<b>200,000</b>

**Footnotes**<sup>1</sup> Cost Sharing at 50%

Prepared by: Ensign & Buckley  
Date: 7/2/98

//server/job files/294/spreadsheets/budget.xls

**Proposal Submittals  
for  
Compliance with Standard Terms and Conditions**

# NONDISCRIMINATION COMPLIANCE STATEMENT

ITEM 7

COMPANY NAME

Miriam Green Associates

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

## CERTIFICATION

*I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.*

OFFICIAL'S NAME

Miriam Green

DATE EXECUTED

September 1, 1998

EXECUTED IN THE COUNTY OF  
Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

Owner

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Miriam Green Associates

# NONDISCRIMINATION COMPLIANCE STATEMENT

ITEM 7

COMPANY NAME

Natomas Mutual Water Company

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

## CERTIFICATION

*I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.*

OFFICIAL'S NAME

Peter J. Hughes

DATE EXECUTED

September 1, 1998

EXECUTED IN THE COUNTY OF  
Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

General Manager

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Natomas Mutual Water Company

# NONDISCRIMINATION COMPLIANCE STATEMENT

ITEM 7

COMPANY NAME

Ensign & Buckley Consulting Engineers

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

## CERTIFICATION

*I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.*

OFFICIAL'S NAME

Ferrel H. Ensign

DATE EXECUTED

September 1, 1998

EXECUTED IN THE COUNTY OF  
Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

Partner

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Ensign & Buckley Consulting Engineers

## **SMALL BUSINESS PREFERENCE**

### **NOTICE:**

Section 14835, et. seq., of the California Government Code requires that a five percent preference be given to bidders who qualify as a small business. The rules and regulations of this law, including the definition of a small business for the delivery of service, are contained in Title 2, California Code of Regulations, Section 1896, et. seq. A copy of the regulations is available upon request. Questions regarding the preference approval process should be directed to the Office of Small and Minority Business at (916) 322-5060. To claim the small business preference, you must submit a copy of your certification approval letter with your bid.

Are you claiming preference as a small business?

\_\_\_\_\_ Yes\*                        X   No

\* Attach a copy of your certification approval letter.

Company Name: **Ensign & Buckley Consulting Engineers**

131017

**ENSIGN & BUCKLEY  
CONSULTING ENGINEERS**

3327 Longview Drive, Suite 100  
North Highlands, CA 95660

**LETTER OF TRANSMITTAL**

Ofc: (916) 971-3961 Fax: (916) 971-0578

TO: CALFED Bay-Delta Program  
1416 Ninth Street, Suite 1155  
Sacramento, California 95814

DATE: July 2, 1998	JOB NO: 294
ATTN:	
RE: <i>Natomas Mutual Water Company</i>	
<i>American Basin Fish Screen and Habitat</i>	
<i>Restoration Project</i>	

WE ARE SENDING YOU

☒ Attached ☐ Under separate cover via \_\_\_\_\_ the following items:

☐ Shop Drawings

☐ Prints

☐ Plans

☐ Samples

☐ Specifications

☐ Copy of Letter

☐ Change Order

☒ Proposal

COPIES	DATE	DESCRIPTION
10	7/2/98	Proposal for American Basin Fish Screen and Habitat Restoration Project

THESE ARE TRANSMITTED as checked below:

☐ For Approval

☐ Approved as Submitted

☐ Resubmit \_\_\_\_\_ Copies for Approval

☐ For Your Use

☐ Approved as Noted

☐ Submit \_\_\_\_\_ Copies for Distribution

☒ As Requested

☐ Returned for Corrections

☐ Return \_\_\_\_\_ Corrected Prints

☐ For Review and Comment

☐ \_\_\_\_\_

☐ FOR BIDS DUE \_\_\_\_\_ 19, \_\_\_\_\_

☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COPY W/ ENCL or W/O ENCL TO: Pete Hughes, Natomas Mutual Water Company

SIGNED: \_\_\_\_\_

*Stephen R. Hulse*

If enclosures are not as noted, kindly notify us at once.

1 - 0 0 8 6 3 8

I-008638